

NUMBER

SIX TEREOSCOPIC TAND

NUMBER SIX TUBE STAND.

CONTROLLED ENTIRELY FROM OPERATOR'S SIDE OF TABLE BY A SINGLE LEVER.

The Campbell Number Six Tube Stand was designed in response to an urgent demand for a device of this sort by which X-ray might be employed in any position without resorting to unnecessary accessory appliances and with the least possible discomfort to the patient and annoyance to the operator.

This is the only Tube Stand on the market which is controlled entirely from the operator's side of the table by a single lever regardless of the position.

The Tube carriage may be swiveled in a complete circle and tilted and shifted for stereoscopic work at any degree of the circumference. The overhang of the tracks supporting tube carriage is sufficient to center the tube over either shoulder of a large patient without turning him on the table. There is an easily movable large friction disc which holds the tube carriage at any angle without necessity of tightening set screws, thus minimizing the danger of the tube accidentally turning upside down with liability of consequent injury to itself and patient.

All moving parts are equipped with high grade ball bearing rollers and there is a safety lock to prevent tube and carriage dropping in case cable breaks.

The cost of construction is necessarily expensive as compared with other stands, but for the busy roentgenologist who wants the best its trifling extra cost is negligible.

SPECIFICATIONS.

Base—Cast iron—wide spreading—flat enough to go under average table—channeled to make it light in weight without making stand top heavy.

Upright—Steel tubing, height 75", counterweight runs inside.

Extension Tracks—Steel tubing, length 26".

Disc For Angle Adjustment—Large aluminum casting fitted to iron casting which runs on upright—carefully machined to provide suitable friction to hold tube at any angle—adjustment provided to regulate friction—when once set requires no further adjustment.

Tube Carriage—Aluminum castings accurately machined and highly finished—provides stereoscopic shift of tube independent of carriage movement and at any angle of the circumference. The flat and wide type of construction of this carriage eliminates all under-hanging metal parts which on other types of tube stands cast shadows and prevent covering a 14" x 17' the employment of a large tube shield with extra large diaphragm opening, not possible with other makes of stands. All movements indicated by accurate calibration.

Lock—Single lever operates through right-hand track tubing and forces a fibre block firmly against upright. Does not scratch nor dent upright. Tension adjustable by machine

Diaphragms—Especially constructed for use as a treatment stand—an opening $\frac{3}{4}$ " deep is provided to accommodate a number of filters of aluminum, leather or other material used to filter the rays in treatment and fluoroscopy. The tube may be brought in close proximity to the affected area.

Cones—of various sizes for all purposes may be quickly attached.

Height 75"—Shipping Weight 200 lbs.—Price with lead glass shield, largest size lead diaphragm and see some, complete, boxed ready for shipment—\$300.

NOTE—Tube carriage in position for vertical stereoscopic radiography. Inner circle of casting turns in outer circle, allowing stereoscopic shift and tilt at any angle.



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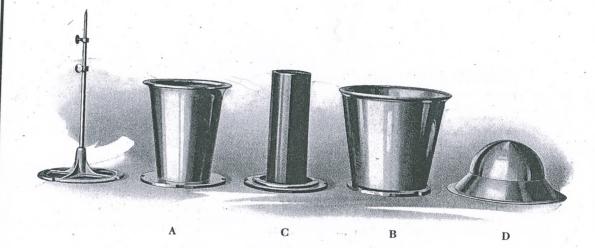
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Cones and attachments for Campbell Tube Stands

Centering Device A 6" aperture Cat. No. 1016 $C 2\frac{1}{4}$ " " 1018 B 8" " " 1017 D Compression Cap " " 1019



CONES AND ATTACHMENTS FOR CAMPBELL TUBE STANDS.

The cones for Campbell Tube Stands are constructed with an outer casing of aluminum highly polished, with an inner lining of lead which effectually confines the X-rays to the proper area.

The compression cap consists principally of an unlined aluminum cap which offers practically no resistance to the X-rays, and is used for securing compression in making kidney plates and similar work.

The centering rod is telescopic and may be extended for use in centering target of tube at various distances from the plate.

All of these attachments are furnished to fit the Campbell No. 12 Metal Tube Stand and the No. 6 Stereoscopic Tube Stand which is used with the Campbell Tube Tilt Table.

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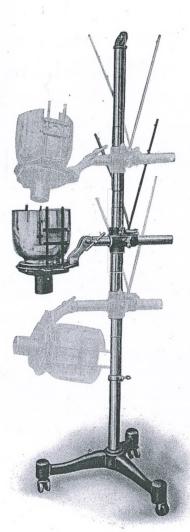
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Ietal Tube Stand and Tilt Table.



Campbell No. 12 Metal Tube Stand.



CAMPBELL NUMBER TWELVE METAL TUBE STAND.

For Radiography and Treatment.

The Campbell Number 12 Metal Tube Stand is designed to meet the urgent demand for a counterweighted metal tube stand with lead glass shield for the general practitioner who does not care to go into X-ray work deeply enough to have use for all the attachments of the higher priced stands as used by the X-ray specialist.

As will be noted by the illustration this stand enables the operator to focus X-rays in all the various positions necessary for the average work, and fulfills the need of all but the exacting requirements of the X-ray specialist.

The design and method of construction with reference to use of high spark gap makes it especially desirable as a treatment stand.

SPECIFICATIONS.

Construction. Upright of steel tubing inside of which counterweight runs. Cast-iron base. Insulating material near tube terminals to permit use of high spark gap for treatment.

Diaphragms. Slot provided for use of various sizes of lead diaphragms to change size of exposure area.

Tube Shield. Provided with heavy lead glass tube shield to accommodate up to and including 7" Coolidge or gas tubes.

Table. Provided with adjustable universal table for head work.

Cord Spreaders. Hold conducting cords in position.

Cones. Provision is made for attachment of various sized cones and cylinders for both treatment and radiography.

Finish. Polished nickel plate and enamel.

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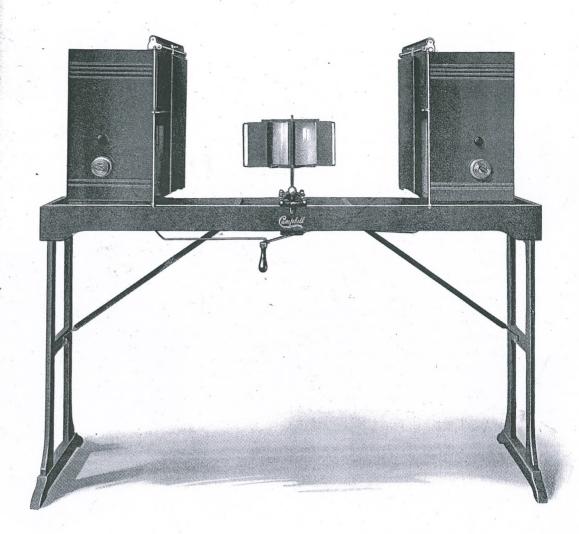
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Campbell Stereoscope with Nitrogen Lamps and Dimmers

Cat. No. 1034





BENOIST PEN failures in radiogra tration of tube on plate during expos

The Campbell Wheatstone Stereoscope is mounted on a substantial, finely finished wood frame, well balanced, and with large enough base so that the whole apparatus remains steady during adjustment. The lower handle shown in illustration adjusts simultaneously the position of the two view boxes in relation to the mirrors. High-grade glass mirrors are used in an adjustable cast frame.

The view boxes are made of metal finished to match the woodwork, and have ample ventilation. They are mounted on show case roller bearings, which admit of easy, quiet adjustment, and accommodate any size plate up to 14" x 17", either horizontally or vertically.

Adjustable curtains are made of rubberized cloth and mounted on spring rollers.

Each box is equipped with nitrogen lamps and high-grade opal glass. The reflection is so arranged than an evenly diffused light is thrown upon the plate to be examined, and the light may be regulated by switches or dimmers to suit the most dense or the thinnest plate.

All metal parts are highly finished in polished nickel plate and enamel. Mahogany and oak are standard, all other finishes are special.



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X-RAY SUNDRIES



PLATE MARKER. Provides absolute identification of every X-ray plate by a serial number corresponding with record file of case. The only system of identification which is unquestionable. Numbers from 0 to 10,000. In ordering, state how you want name.

Cat. No. 1088

BENOIST PENETROMETER. To repeat your successes and avoid your failures in radiography it is necessary that you make accurate record of penetration of tube on every plate made. This little inexpensive device placed on plate during exposure leaves a clear permanent record of the penetration used.



Cat. No. 2063



LEAD LINED PLATE BOX

LEAD LINED BOXES X-ray plates and films are so extremely sensitive to the X-ray that they are not safe even when located a number of rooms away from the apparatus unless stored in lead lined boxes.

FILM CHEST. Made of metal, nicely finished, lead lined, accommodates small plates and several packages of dental films.

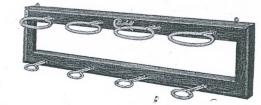
Cat. No. 2043



PLATE BOX. Highly finished case with lining of heavy sheet lead. The box illustrated affords ample protection if kept closed while tube is in operation.

Cat. No. 1083

TUBE RACK. Made of nicely finished oak, rubber covered metal rings to hold X-ray tube. Made in sections to hold any number of tubes. The price of one broken tube would pay for several of these racks.



Cat No. 1084 1 Unit 1085 2 Unit 1086 4 Unit 6 Unit



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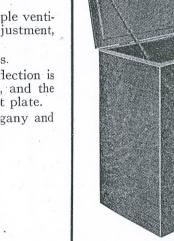
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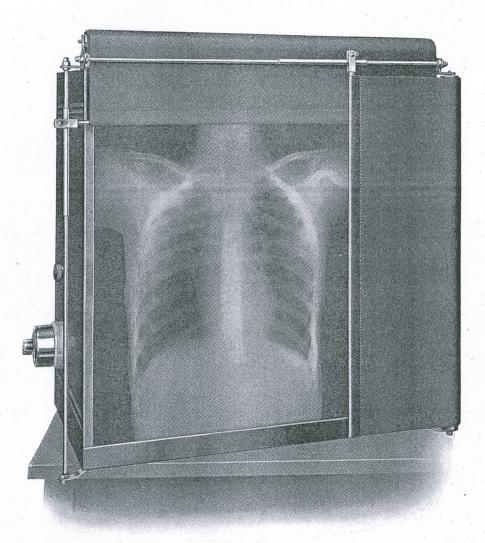
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VIEW BOX

(Plate Illuminator)



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Surface
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Set

Consists of one of the illuminating boxes used with the Stereoscopic Illuminator. Is fitted with dimmer and nitrogen lamps adjusted in such a manner as to allow regulation of the light to bring out every detail of the X-ray plate, and makes valuable for diagnosis, plates which with other means of illumination would have absolutely no diagnostic value.

Boxes made entirely of metal, well ventilated, and finished in oak or mahogany. A special

Boxes made entirely of metal, well ventilated, and finished in oak or mahogany. A special opal glass is used, covered by waterproof curtains mounted on spring rollers adjustable to plates up to and including size 14" x 17", in either horizontal or vertical position.

Complete with lamps, dimmer, cord, and plug ready for connection to 110 volt lighting socket.

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FULGURATION ELECTRODE



This electrode is intended for the removal of warts. moles, naeve and similar growths by the local application of a spark. It consists of a metal pointed electrode which is connected directly with the Tesla terminal of the coil. It allows accurate localization and rapid withdrawal when sufficient spark has been applied.

Cat. No. 1552

INSULATED DENTAL ELECTRODES

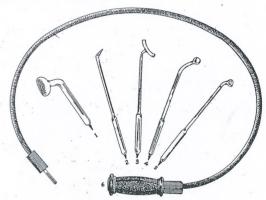
The High-Frequency current is found to be very useful in dentistry as a strong stimulant which may be increased to the point of counter-irritation if desired, and for this reason is being successfully used in the treatment of pyorrhea alveolaris, gingivitus, periodontitis and all other conditions where increased metabolism is

A mild high-frequency current may be used to produce a sedative effect, and will relieve congestion.

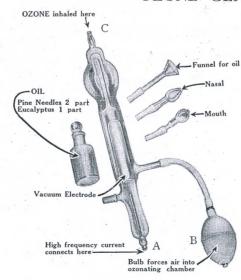
1. Surface 4. Pyorrhea Cavity
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Gum
 Handle

Set with handle Cat. No. 2015



OZONE GENERATOR



CAMPBELL OZONATOR for use with Campbell High Frequency Coil

Has a Vacuum Chamber for Connection with High-Frequency Current from a Campbell Coil.

Ozone passes through a neutralizing oil.

Coil connected at "A," air is forced with rubber bulb at "B," and ozone inhaled at

Equal to a \$500.00 Ozone Apparatus.

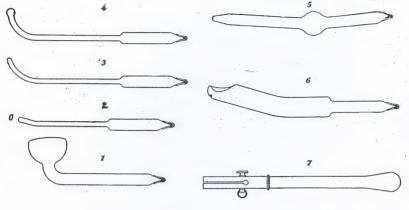
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VACUUM ELECTRODES

(For High-Frequency Coils)

PLAIN



Cat. No. 1545

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8. Single Eye Electrode

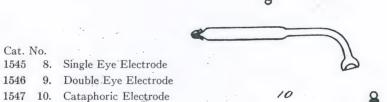
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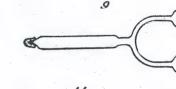
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3.	Urethral	1534
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5.	Rectal	1533
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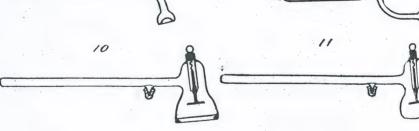
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7. Handle

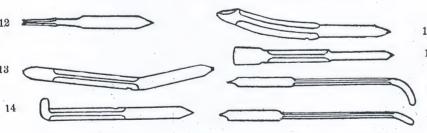
SPECIAL







INSULATED



13. Rectal, Cat. No. 1539 12. Ear, Cat. No. 1543 14. Post Nasal 16. Tongue 17. Urethral, Cat. No. 1540 15. Vaginal, Cat. No. 1538 18. Nasal, Cat. No. 1541

WORK IN CAVITIES. For this form of treatment the special electrode adapted to part should be used. It should be placed in situ before the current is turned on, and the current should be turned off before its removal. Introduction may be facilitated by lubrication of electrode. The sensation is one of warmth only, and owing to the sensitiveness of the mucous membranes and the fact that the electrode is to remain stationary, treatment should not be longer than from three to seven min-

utes, else there may be produced a local, direct burn. From the tendency of the current to leave the electrode at the first point of contact, it is best to use insulated electrodes in cavity work. Caution.—Be sure that metal sleeve of electrodes also connecting cord, do not come near enough to patient to allow direct spark discharge. Test current on yourself before applying to patient. This current is hot, and under favorable circumstances will ignite inflammable material; therefore use it with care when treating through flimsy clothing and do not apply it in the immediate vicinity of an oily or collodion description.

LUBRICATION OF ELECTRODES. As all oily substances are natural insulators, it is necessary to lubricate elec-

trodes for internal work with one of the mucoid lubricants.

CARE OF ELECTRODES. Be sure that, like all surgical instruments, your electrodes are properly cleansed after each use. Being entirely of glass, this may be accomplished by means of antiseptics or by boiling. If you are treating any specific cases, keep an individual electrode for each patient.

For ordinary cleansing, it is sufficient to use a piece of surgical gauze moistened with denatured alcohol, and every electrode should be so cleansed before use.

Surface Nasal

Urethral Throat

Rectal Vaginal

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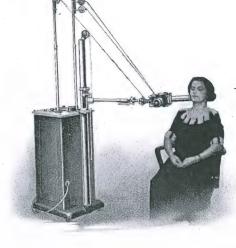
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THE SIX DENTAL POSITIONS

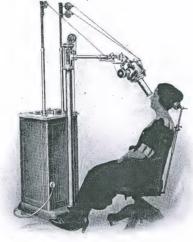






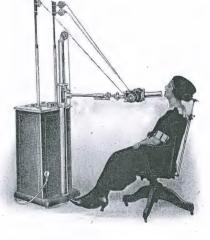
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UPPER INCISOR





LOWER INCISOR

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LATERAL JAW

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FRONTAL SINUS AND ANTRUM Campbell

CAMPBELL CLINICAL DENTAL X-RAY UNIT

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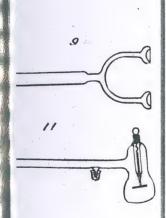
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As Applied To Dentistry

With Dental Tube Stand. Counterweighted. Vertical and horizontal stereoscopic shift for stereo radiography. Adjustable as to height as well as to distance from machine to patient.

3 to 5-inch Gap—1 to 30 milliamperes. That this range of voltage and volume is sufficient for radiography or fluoroscopy of any part of the body is corroborated by the U. S. Army Manual and the Eastman X-Ray Exposure Rule.

Sinus and Antrum work is possible with this apparatus which could not be done with the ordinary dental unit giving only a 3-inch spark gap on account of lack of sufficient penetration.

The radiographic possibilities of this outfit are limited only by the ingenuity of the dentist to apply it.

Campbell X-Ray and High Frequency Apparatus is and has been the leader for many years. When you buy Campbell apparatus you get the benefit of twenty years' experience in the manufacture of X-Ray apparatus. Why experiment? Buy something tried and true. Get the best. Buy a Campbell.

See dental positions on other side



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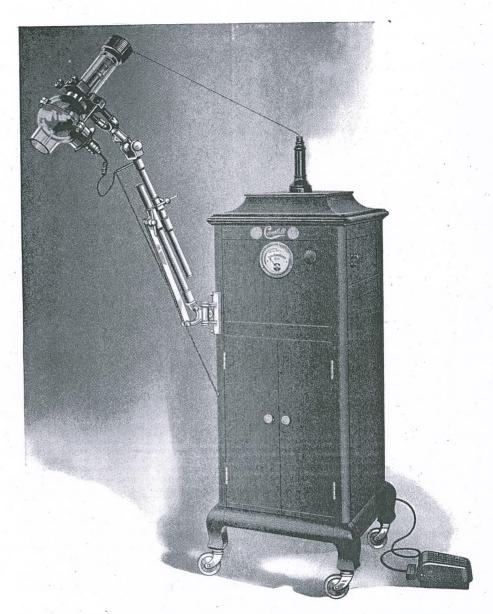
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CAMPBELL COOLIDGE — DENTAL X-RAY UNIT

Cat. No. 1200

U. S. Patents December 19, 1911; April 22, 1913; August 7, 1917. Other Patents Pending.



Patented

Campbell Coolidge Dental X-ray Unit

Silent—Always ready without preliminary adjustments—Uniform Results

Dentists realize now the necessity of X-ray in their practice. The patients also are beginning to realize its importance.

Many dentists have neglected to avail themselves of this powerful aid to their profession, due in many cases to the fear that X-ray work would be too difficult.

In the Campbell Coolidge Dental Unit the process of making dental radiographs has been reduced to one of extreme simplicity as it is only necessary, after film and tube are placed, to close switch for a few seconds and film is ready to develop.

This simplicity in operation is obtained, due to the fact that the current in the tube remains practically constant as to volume and voltage, thus the operation can be repeated hundreds of times with uniform results, and without the annoyance of the noise and adjustments of spark gaps, tube vacuum, etc.

The whole outfit is the evolution of many years of combined research work and is a model of **efficiency**, beauty, and durability, such only as this company of twenty years' experience in the manufacture of all kinds of X-ray apparatus for the dentist, physician and hospital will offer to the dental profession.

SPECIFICATIONS.

Cabinet—Equipped with ball-bearing casters. Mahogany is the standard finish. Other finishes are special.

Milliammeter—Mounted flush in front of cabinet. Indicates current passing through tube. High Tension Transformer—Secondary 45,000 volt. Closed core, oil insulation, metal tank. Cathode terminal grounded, minimizes danger of accidental shock.

Auto Transformer—Compensates for difference in line voltage, also provides filament current. Arranged so that filament current is on before high tension current is turned on.

Control—Voltage and volume are simultaneously regulated to suit current supply by turning regulator handle located on front of cabinet at right of milliammeter. This method of control compensates for rise and fall in voltage and consequent fluctuation of penetrative value of the X-rays which results in apparatus regulated by control of filament circuit only.

Reels—for connecting wires—Self-winding, concealed in cabinet.

Foot Switch—Carbon contacts prevent sudden inrush of current to transformer and prevent arcing and burning of contacts.

Current Required—Operates on alternating current of from 100 to 120 volts, 40 to 60 cycles, 10 amperes. Also on direct current by addition of rotary converter mounted in bottom of cabinet.

Tube Holder-Universal adjustment to any position. Rigid, highly finished.

Protection—The standard and approved Coolidge special heavy glass tube shield completely enclosing tube. Made of lead glass equivalent in protection to approximately $\frac{1}{32}$ metallic lead.

Tube—Self-rectifying Coolidge radiator type, designed with special reference to convenience of focusing in dental work. Cathode terminal placed at right angles to anode allows rays to emanate from end of tube opposite anode, thus eliminating much of the inconvenience usually attendant to getting patient and tube in proper position for radiograph.

Patents—This apparatus is protected by U. S. patents issued Dec. 19, 1911, April 22, 1913 and August 7, 1917. Other patents pending.

OUTFIT.

Coil—A. C., 110 volt, 60 cycles, including mahogany finished cabinet, transformers, regulators, meter, etc. Catalogue Number 1200

Tube Holder—Universal Bracket Type. Catalogue Number 2007 Foot Switch—Carbon make and break. Catalogue Number 1037

Glass Shield—Lead protective. Catalogue Number 2010

Coolidge Tube—Dental Radiator type. Catalogue Number 1029

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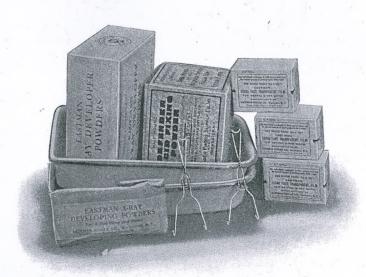


Campbell Developing Cabinet

Cat. No. 2047



Developing Cabinet—a great convenience where a dark room is not available. Designed especially for developing and fixing dental films and small plates. Armlets are held tight around the arms by elastic which excludes all light. Front of cabinet opens full length to allow placing of trays or cups containing developer, fixer and water. Operator views process of development through opening at top, which is covered by ruby glass. When film or plate is developed, it may be examined by film illuminator, consisting of opal glass set in top of cabinet, under which is incandescent light which throws light into the cabinet through a ruby glass for development, and through the opal glass for examining the finished film. Mahogany and Oak are standard finishes, all other finishes are special. Furnished with two 5 x 7 trays, developing, fixing powders, film clips and three dozen No. 1 films.



Supplies furnished with cabinet